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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,919	10/10/2001	Gregory K. Woods	000153	1081

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER	
RYMAN, DANIEL J	
ART UNIT	**PAPER NUMBER**
2665	6

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/974,919	WOODS ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer (USPN 5,933,449).

3. Regarding claim 1, Meyer discloses an apparatus for selectively interconnecting a plurality of ports (ref. 10a-n), comprising: a cross-bar switch (ref. 18)), having a plurality of bi-directional data ports (ref. 10a-n), and a controller (ref. 38), operable to control said cross-bar switch to interconnect any two of said plurality of bi-directional data ports (col. 3, line 49-col. 4, line 55).

4. Regarding claim 2, referring to claim 1, Meyer discloses that the plurality of bi-directional ports are adapted to interconnect RS-232 ports (col. 12, line 59-col. 13, line 15).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (USPN 5,933,449) in view of Mu et al (USPN 5,991,296).

7. Regarding claim 3, referring to claim 1, Meyer does not expressly disclose that the cross-bar switch is implemented with a plurality of digital buffers. Mu teaches, in a crossbar switch, that the crossbar switch is implemented with a plurality of digital buffers in order to store data until a connection in the switch can be completed (col. 1, line 65-col. 2, line 51 and col. 4, lines 25-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the cross-bar switch with a plurality of digital buffers since buffers are well known means to store information in a cross-bar switch until a connection can be completed.

8. Regarding claims 4 and 11, Meyer discloses an apparatus, comprising: first, second, and third interfaces each having an input and an output (ref. 10a-n and col. 3, line 49-col. 4, line 55) where n=3; an interface controller having a first, second, and third control outputs (ref. 38), and operable to enable any one of said outputs individually (ref. 38; col. 2, line 56-col. 3, line 28; col. 4, line 45-55; and col. 14, lines 48-67); a control input wherein said control inputs enable and disable the coupling of signals through said interface (ref. 38; col. 2, line 56-col. 3, line 28; col. 4, line 45-55; and col. 14, lines 48-67). Meyer does not expressly disclose a first, second, third, fourth, fifth, and sixth buffer, each having an input, an output, and a control input, and wherein said control inputs enable and disable the coupling of signals through said buffers, and wherein said output of said first and second buffers are coupled to said input of said first interface; said outputs of said third and fourth buffers are coupled to said input of said second interface; said outputs of said fifth and sixth buffers are coupled to said input of said third interface; said output of said first interface is coupled to said input of said fourth and fifth buffer; said output of said second interface is coupled to said inputs of said first and sixth buffers; said output of said third

interface is coupled to said inputs of said second and third buffers; said first control output is coupled to said control inputs of said first and fourth buffers; said second control output is coupled to said control inputs of said third and sixth buffers, and said third control output is coupled to said control inputs of said second and fifth buffers. Mu teaches, in a crossbar switch, that the crossbar switch is implemented with a plurality of digital buffers, each port containing one buffer for each of the outputs, in order to store data until a connection in the switch can be completed (col. 1, line 65-col. 2, line 51 and col. 4, lines 25-64). Meyer in view of Mu suggests having a control input on each of the buffers in order to enable or disable the flow of information from each of the buffers. It would have been obvious to one of ordinary skill in the art at the time of the invention to have buffers with an input, an output, and a control input arranges such that each port has a buffer for each of the destination ports since buffers are well known means to store information in a cross-bar switch until a connection can be completed.

9. Regarding claims 5 and 12, referring to claims 3 and 11, Meyer in view of Mu discloses means for disabling said control inputs sets said outputs of said buffers to a high impedance state (Meyer: ref. 37; col. 2, line 56-col. 3, line 28; col. 4, line 45-55; and col. 14, lines 48-67 and Mu: col. 1, line 65-col. 2, line 51 and col. 4, lines 25-64), and wherein said interface controller is operable to disable all of said control outputs (Meyer: ref. 37; col. 2, line 56-col. 3, line 28; col. 4, line 45-55; and col. 14, lines 48-67).

10. Regarding claims 6 and 13, referring to claims 3 and 11, Meyer in view of Mu discloses that the interfaces are serial port interfaces (Meyer: col. 12, line 59-col. 13, line 15).

11. Regarding claims 7 and 14, referring to claims 6 and 13, Meyer in view of Mu discloses that the serial port interfaces are RS-232 serial port interfaces (Meyer: col. 12, line 59-col. 13, line 15).

12. Regarding claims 8 and 15, referring to claims 6 and 13, Meyer in view of Mu discloses that the output of said serial port interface is a transmit data output, and said input of said serial port interface is a receive data input (Meyer: col. 12, line 59-col. 13, line 67).

13. Regarding claims 9 and 16, referring to claims 7 and 14, Meyer in view of Mu discloses that the output of said serial port interface is a request to send output, and said input of said serial port interface is a clear to send input (Meyer: col. 12, line 59-col. 13, line 67).

14. Regarding claims 10 and 17, referring to claims 4 and 11, Meyer in view of Mu discloses that the interface controller is incorporated into one of said interfaces (Meyer: col. 4, lines 53-55).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (703)305-6970. The examiner can normally be reached on Mon.-Fri. 7:00-5:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Daniel J. Ryman

Examiner
Art Unit 2665

DJR

Daniel J. Ryman

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600